Iwao HINO* and Ken KATUMOTO*: **Notes on bambusicolous Fungi (2)**

日野 巖*・勝本 謙*: 竹類寄生菌論考 (2)

7. **Cochliobolus miakei** Hino et Katumoto, sp. nov.

Pseudotheciis sparsis vel subgregariis, immersis, solitariis, globosis, 380–500 μ diam.; collo distincto, longi tubuloso, erumpenti protrudentique, 100–200 μ longo; peridiis membranaceis, pseudoparenchymaticis, brunneis, ad apicem atro-brunneis, ostiolatis, 10–15 μ crassis, ex cellulis polyhedralibus, isodiametricis et 5–9 μ diam. compositis; ascis basilaribus, bitunicatis, cylindraceis, apice rotundatis, stipitatis, octosporis, 160–220 × 10–13 μ; paraphysoideis numerosis, filiformibus, simplicibus, hyalinis; ascosporidiis filiformibus, longis, spiraliter fasciculatis, aseptatis, hyalinis vel subhyalinis, guttulatis, 1.5–2 μ crassis.

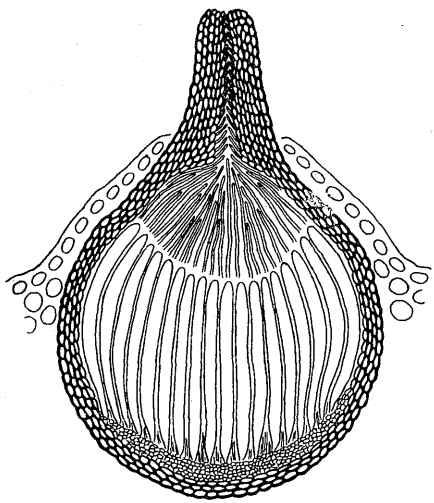

Fig. 1. *Cochliobolus miakei*: pseudothecium ×100

Hab. in culmis et vaginis foliorum emortuis *Pleioblasti distichi* var. *nezasa* Muroi et H. Okam. Hukuga, Abu-tyô, Prov. Nagato (Mai. 3, 1956. N. Miake—Typus in Herb. FAUY).

The basal portion of the pseudothecium is regularly globose, and composed of 3–4-layers of brownish polyhedral cells. The upper portion of the pseudothecium forms a long tubular neck, which bursts out of the epidermis and highly protrudes, and is composed of denser layers of blackish cells, and opens with long canalate ostiole along which the periphysis-like hyphae are arranged.

The present species seems to be somewhat similar to *Cochliobolus sasae* Hino et Katumoto, but is easily distinguishable from the latter species in respect to the globose basal portion, long protuberant neck of pseudothecia and shorter longitu-

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dinal dimension of asci.

8. **Micropeltis kyusyuensis** Hino et Katumoto, sp. nov.

Maculis gregariis, rotundatis, plerumque irregularibus, mox conjunctis et valde effusis, membranaceis, viride-fuscis; hyphis non visis; ascostromatibus superficialibus, gregariis, solitariis, scutiformibus, apice ostiolatis, 160–280 μ diam.; contextu irregulariter reticulato, brunneo; ascis clavatis vel obclavatis, apice rotundatis, breviter stipitatis, octosporis, 80–104×10–13 μ; paraphysibus filiformibus, simplicibus, 70–110 × 1–1.5 μ; ascosporidiis distichis, fusoideis, 5-septatis, non constrictis, apice utrinque obtusis, hyalinis, 22.8–27.7×3.8–4.9 μ.

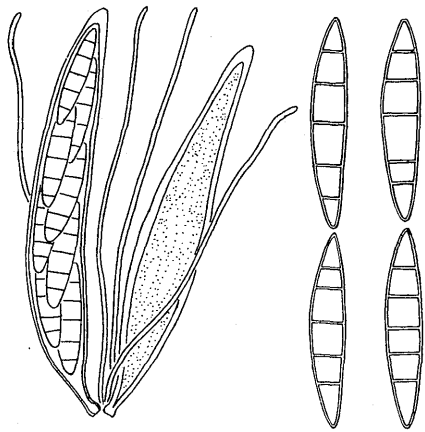

Fig. 2. *Micropeltis kyusyuensis*: asci ×500 and ascospores ×1000.

Hab. in culmis vivis *Phyllostachydis bambusoides* Sieb. et Zucc. Mt. Hôman, Prov. Tikuzen (Sept. 30, 1956. T. Hino—Typus in Herb. FAUY).

9. *Didothis dispersa* Hino et Katum. The pseudothecia are scattered or subgregarious on the culms, solitary, rarely conglobate, subepidermal, flattened semiglobose, 250–300 μ in diam., and 100–160 μ in height. The upper portion of the peridium of the pseudothecium is membraneous, pseudoparenchymatous, blackish-brown, 15–25 μ in thickness, opens with the ostiole at the apex, and is composed of the cells which are polyhedral, isometric and 4–7 μ in diameter. The narrow hyphae penetrate into the intercellular portion of epidermal cells and also of the subepidermal parenchymatous cells. The basal portion of the peridium is thin, pseudoparenchymatous, and composed of 1–2-layers of hyaline cells. The asci are cylindrical, bitunicate, with short stipes, containing eight spores in two rows, and 70–110×15–18 μ. The paraphysoids are numerous, filiform, septate, hyaline, simple and 1–1.5 μ in thickness. The ascospores are fusoid to biconical, 1-septate at the middle portion, distinctly constricted at the septum, hyaline, usually containing a large drop particle in each cell, and 23.5–34×5.5–10 μ.

The present fungus is to belong to the family Pleosporaceae of Loculoascomycetidae in respect to the ostiolate peridium of pseudothecia and bitunicate asci,

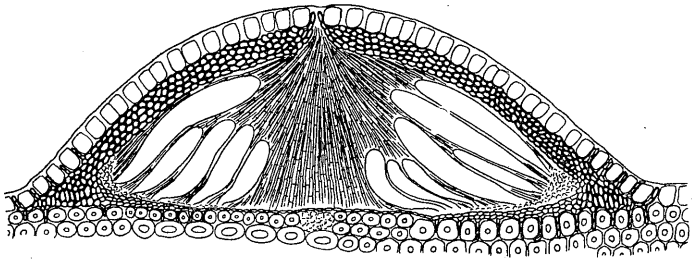

Fig. 3. *Tomasellia dispersa*: pseudothecium ×250.

and it seems to have its natural taxonomic position in the genus *Tomasellia* Massalongo in Pleosporaceae.

Tomasellia dispersa (Hino et Katumoto) Hino et Katumoto, comb. nov.

Didothis dispersa Hino et Katumoto, Bull. Fac. Agr. Yamaguti Univ., 8: 652, 1957—Hino, Icon. Fung. Bamb. Jap.: 210, 1961.

Hab. on the dead culms of *Pleioblastus distichus* var. *nezasa* Muroi et H. Okam. Hukuga, Abu-tyô, Prov. Nagato (May 3, 1956. N. Miake—Type in Herb. FAUY).

10. **Apiosphaeria nipponica** Hino et Katumoto, sp. nov.

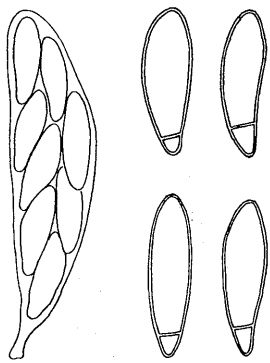

Fig. 4. *Apiosphaeria nipponica*: ascus ×500 and ascospores ×650.

Stromatibus epiphyllis, sparsis, solitariis, submersis, subglobosis vel depresso-globosis, 240–300 μ latis, 180–250 μ altis; peritheciis paucis (plerumque 2) in stromate, subglobosis vel lageniformibus, 100–150 μ latis; peridiis membranaceis, pseudoparenchymaticis, ca. 10 μ crassis, brunneis, apice ostiolatis, ex cellulis polyhedralibus, isodiametricis et 5–10 μ crassis compositis; ascis clavatis, unitunicatis, apice rotundatis, basim breviter stipitatis, octosporis, 60–85×17–22 μ; paraphysibus filiformibus, hyalinis, conglomeratis, ad maturitatem; ascosporidiis distichis, fusoideis vel oblongo-fusoideis, inaequaliter 2-locularibus, non constrictis, apice utrinque obtusis, hyalinis, laevibus, 28–31×9–10 μ.

Hab. in foliis vivis *Sasae nipponicae* Makino. Mt. Rokkô, Urbs Kôbe, Prov. Settu (Sept. 14, 1957. H. Muroi—Typus in Herb. FAUY).

The apical portion of the perithecium is long tubular, ostiolate, and bears

numerous periphyses along the canalate portion. The asci are unitunicate, and the apical apparatus is indistinct.

11. *Schizostoma muroianum* Hino et Katum. The spots are sparsely formed on the culm, circular, decolorate and whitish yellow, and 0.5–0.8 mm in diameter. The perithecia are immersed, solitary, somewhat depressed globose, 400–600 μ in diameter and 200–260 μ in height. The apical portion of the perithecia is distinctly constricted and opening with the ostiole at the apex. The peridium of the perithecium is coriaceous to submembranaceous, pseudoparenchymatous, blackish brown, 15–20 μ in thickness, and composed of the cells which are polyhedral, isometric and 6–10 μ in diameter. The asci are divergent from basal and lateral portion of the inner surface of perithecium, unitunicate, cylindrical, with short stipes, containing eight spores in a row, rounded at the apex, containing ring-like apical apparatus which is highlystained bluish with Melzer's reagent, and 130–190×15–19 μ. The paraphyses are numerous, filiform, simple, hyaline, and 1.5–2 μ in thickness. The ascospores are fusoid to oblong, 1-septate at the middle portion, constricted at the septum, erect or curved, rounded or

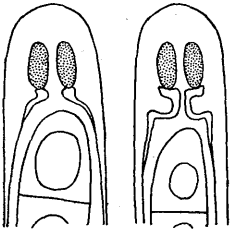

Fig. 5. *Amphisphaeria muroiana*: apical portion of asci.

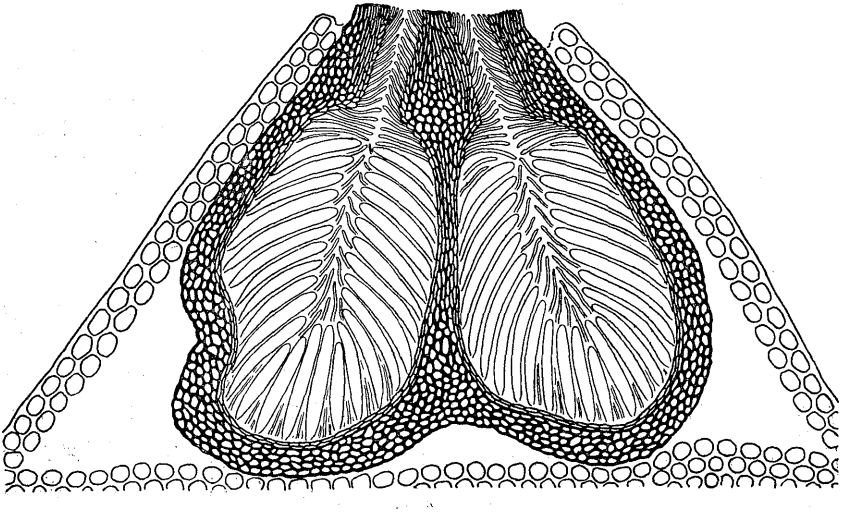

Fig. 6. *Linocarpon muroianum*: stroma ×140.

obtuse at both ends, brownish to dusky brown, containing large drop particles, and 21–26×6.5–9 μ.

The present species seems to be preferably transferred to the genus *Amphisphaeria* by emphasizing the character of apical apparatus which is ring-like and easily stained bluish with Melzer's reagent.

Amphisphaeria muroiana (Hino et Katumoto) Hino et Katumoto, comb. nov.

Schizostoma muroianum Hino et Katumoto, Bull. Fac. Agr. Yamaguti Univ., **9**: 895, 1958—Hino, Icon. Fung. Bamb. Jap.: 154, 1961.

Hab. on the dead culms of *Phyllostachys bambusoides* Sieb. et Zucc. var. *marliacea* Makino f. *katasibo* Muroi. Tatuno, Prov. Harima (Jan. 27, 1957. H. Muroi—Type in Herb. FAUY).

12. **Linocarpon muroianum** Hino et Katumoto, sp. nov.

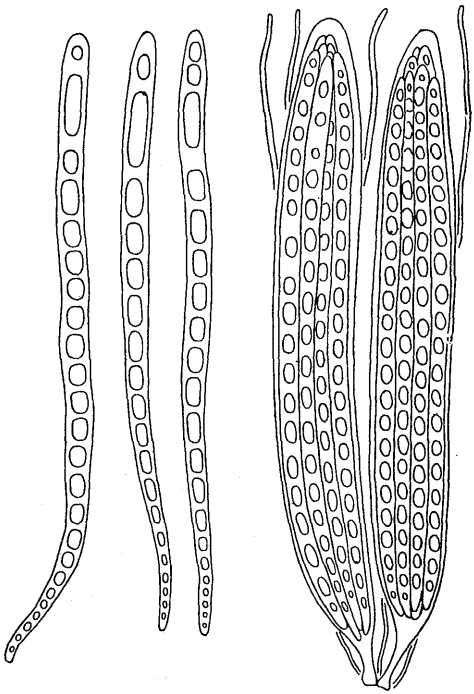

Fig. 7. *Linocarpon muroianum*: asci and ascospores ×650.

Stromatibus gregariis vel sparsis, plerumque ad culmos longitudinaliter breviterque striatis, 0.8–1.2 mm longis, subepidermatibus, dein apice erumpentibus, subglobosis, ovoideis vel leviter irregularibus, 1–2-locularibus, 450–550 μ diam., subcoriaceis, atro-brunneis, pseudoparenchymaticis, ex cellulis polyhedricis isodiametricis et 3–5 μ diam. compositis; perithecis submersis in stromate, ovoideis vel subglobosis, apice ostiolatis, 260–320 μ diam., 300–400 μ altis, ex cellulis lenticularibus, brunneis vel pallide brunneis, 9–12×3–4 μ compositis; ascis cylindraceis, apice rotundatis vel obtusis, ad basim attenuatis, stipitatis, octosporis, 105–145×10.5-13.5 μ; paraphysibus filiformibus, simplicibus, 100–150×1–1.5 μ; ascosporidiis fasciculatis, tenuiter vermiculariformibus, erectis vel

paulum curvatis, apice rotundatis, ad basim attenuatis et obtusis, continuis, hyalinis, multiguttatis, 87-124×3-3.5 μ.

Hab. in culmis emortuis *Sasae kurilensis* Makino et Shibata. Mt. Nyûtôzan, Prov. Ugo (Aug. 4, 1955. H. Muroi—Typus in Herb. FAUY).

The stromata are buried in the parenchymatous tissue of the culms of the host plant, later erumpent with the apical portion, containing one or two perithecia. The perithecia open with ostioles which are rather long, neck-like, and bearing numerous periphyses along the canalate portion. The asci are unitunicate and show no distinct reaction at the apical apparatus with Melzer's reagent.

The present fungus seems to belong to the family Diaporthaceae, and is judged to be a new species of the genus *Linocarpon* Sydow by the writers.

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7. *Cochliobolus miakei* Hino et Katumoto (新種)

ネザサの稈および葉鞘に発生し，さきに筆者らが記載した *C. sasae* に類似しているが，子嚢殻の形態と子嚢および子嚢胞子の長さによって区別される。

8. *Micropeltis kyusyuensis* Hino et Katumoto (新種)

マダケの稈に寄生し，暗緑褐色の斑紋上に子嚢殻を群生する。

9. *Didothis dispersa* Hino et Katumoto

扁平，半球形の子嚢殻は頂部に口孔を有し，子嚢は bitunicate であることからこれを Pleosporaceae 中の *Tomasellia* 属に移した。

10. *Apiosphaeria nipponica* Hino et Katumoto (新種)

ミヤコザサの葉に寄生し，子嚢殻は子座中に少数埋没し，子嚢は unitunicate であるが頂部構造は不明瞭で，沃度に対して反応を示さない。子嚢胞子は基部近くに1隔膜を生じて不等2細胞に分たれ，無色である。

11. *Schizostoma muroiannum* Hino et Katumoto

子嚢頂部に沃度で濃青色に染まる輪状物を含むことから，これを Amphisphaeriaceae の *Amphisphaeria* 属に移した。

12. *Linocarpon muroianum* Hino et Katumoto (新種)

ネマガリダケの稈に寄生。子嚢殻は子座中に 1—2 個埋没して生じ，子嚢は unitunicate であるが頂部構造は不明瞭で，沃度に対して反応を示さず，胞子は細長い円筒形で無色，隔膜を有せず，多くの油胞を含んでいる。